

REMARKS

Upon entry of the forgoing amendments, claims 1 to 3 and 5 to 22 will be presently pending. Claim 1 has been amended, without prejudice, to incorporate claim 4, which has been canceled, without prejudice. Claim 16 has been amended, without prejudice. No new matter has been added. In view of the following remarks, reconsideration and withdrawal of the rejections is respectfully requested.

Discussion of the Rejection Under 35 U.S.C. § 112, Second Paragraph

Claim 16 is rejected as being allegedly indefinite under 35 U.S.C. § 112, second paragraph, with regard to the term "methyl chloride". Applicant respectfully submits that the present rejection is moot in view of the amendments to claim 16 which replace this term with "chloromethane".

Discussion of the Rejection Under 35 U.S.C. § 112, First Paragraph

Claims 1 to 22 are rejected as allegedly lacking enablement under 35 U.S.C. § 112, first paragraph, with regard to the production of all single carbon hydrofluorocarbons from all possible reactive organic compounds. The Examiner further asserts that undue experimentation would be required to efficiently produce other than difluoromethane or to conduct processes where the reactive groups and reactions are different as the entire process is dependent on different competing equilibria. Applicants traverse respectfully this rejection and request reconsideration because the Examiner has not met the burden of establishing a reasonable basis to question the enablement provided for the claimed invention.

It is settled law that whenever the adequacy of enablement provided by an applicant's specification is challenged, the Examiner has the initial burden of giving reasons, supported by the record as a whole, why the specification is not enabling (*In re Armbruster*, 185 U.S.P.Q. 152 (C.C.P.A. 1975)). The enablement requirement of 35 U.S.C. § 112 is satisfied if a disclosure contains sufficient information such that persons of skill in the art, having the disclosure before them, would be able to make and use the invention. The legal standard for enablement under § 112 is whether one skilled in the art would be able to practice the invention without undue experimentation (*In re Wands*, 8 U.S.P.Q. 1400 (Fed. Cir. 1988)). Any experimentation that may be required is not undue as long as it is of a routine nature (*Ex parte Forman*, 230 U.S.P.Q. 546, 547 (Pat. Off. Bd. App. 1986)). As the Federal Circuit noted:

The test [for undue experimentation] is not merely quantitative, since a considerable amount of experimentation is permissible, if it is merely routine,

or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed to enable to determination of how to practice a desired embodiment of the claimed invention. PPG Indus., Inc. v. Guardian Indus. Corp, 37 U.S.P.Q.2d 1618, 1623 (Fed. Cir. 1996) (quotation and citation omitted).

In the first instance, Applicants' disclosure indeed contains sufficient information to allow persons skilled in the art to practice the claimed process for producing a desired hydrofluorocarbon compound having a single carbon atom. For example, pages 5 to 20 of Applicants' specification detail the processes of the claimed invention. Such disclosure is indeed supportive of enablement of the claimed process for producing a desired hydrofluorocarbon compound having a single carbon atom. Accordingly, any experimentation that may be required would not be undue in view of said teachings (*Ex parte Forman*, 230 U.S.P.Q. 546, 547 (Pat. Off. Bd. App. 1986)).

Moreover, there is no evidence cited in the Office Action to establish any basis for doubting that those skilled in the art would be able to practice Applicants' claimed invention. With regard to the enablement determination, the following statement from *In re Marzocchi*, 169 U.S.P.Q. 367, 369-70 (C.C.P.A. 1971), is noteworthy:

The only relevant concern of the Patent Office under these circumstances should be over the truth of any assertion. The first paragraph of § 112 requires nothing more than objective enablement. How such a teaching is set forth, either by use of illustrative examples or by broad terminology, is of no importance.

As a matter of Patent Office practice, then, a specification disclosure which contains a teaching of the manner and process of making and using the invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as in compliance with the enabling requirements of the first paragraph of §112 unless there is reason to doubt the objective truth of the statements contained therein which must be relied upon for enabling support.

The law thus requires the Patent Office to accept Applicants' assertions of enablement or provide reasoning and evidence to substantiate doubts of the objective truth of Applicants' assertions (*In re Dinh-Nguyen*, 181 U.S.P.Q. 46 (C.C.P.A. 1974); *In re Bowen*, 181 U.S.P.Q. 48 (C.C.P.A. 1974)).

The Office Action, however, has provided no factual evidence indicating a reason to doubt that Applicants' disclosure would enable those skilled in the art to practice the claimed processes. The Office Action, for example, expresses doubt that the claimed processes could be used to prepare other single carbon hydrofluorocarbons other than difluoromethane embraced by the claims (Office Action at 2-3), but provides **no evidence** as to how and why the teachings in Applicants' specification are not true such that the process claims would not be enabled. Rather, the Office Action makes only bare assertions that, for example, "undue

experimentation would be required to efficiently produce other than difluoromethane or to conduct processes where the reactive groups and reactions are different as the entire process is dependent on different competing equilibria", or that "all working examples are drawn to [the production of difluoromethane]" (Action at 2 to 3). In this regard, the Action has provided **no factual evidence or technical reasoning** to support the bare assertions contained therein. Since there is no reason to doubt the truth of statements made in Applicants' disclosure regarding enablement, practice of the pending claims must be deemed enabled (*In re Wright*, 27 U.S.P.Q.2d 1510, 1513 (Fed. Cir. 1993)). Further, the presence of only one working example should never be the sole reason for rejecting claims as being broader than the enabling disclosure, even though it is a factor to be considered along with all the other factors. To make a valid rejection, one must evaluate all the facts and evidence and state why one would not expect to be able to extrapolate that one example across the entire scope of the claims (MPEP § 2164.02). Accordingly, Applicants respectfully request that the rejection for alleged lack of enablement be reconsidered and withdrawn. Applicants respectfully submit that as claims 12 to 14 and 16 to 22 are only subject to the present rejection, such claims are now in condition for allowance.

Discussion of the Rejections Under 35 U.S.C. §§ 102(b)/103(a)

Claims 1, 2, 3, 8, 10, 11 and 15 are rejected as allegedly anticipated under 35 U.S.C. § 102(a) by U.S. Patent No. 5,763,708 to Clemmer et al. ('708 patent) or U.S. Patent No. 6,365,580 to Clemmer et al. ('580 patent). Applicants respectfully traverse this rejection as the '708 and '580 patents **do not** teach or suggest each and every limitation of claims as now amended.

For a reference to anticipate a claim under 35 U.S.C. § 102, "the identical invention must be shown in as complete detail as is contained in the ... claim" (*Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989)). Further, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" (*Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987)).

The processes disclosed in the '708 or '580 patents each **do not** produce the reaction byproduct of the presently claimed process which comprises **at least about 0.3** percent by weight of intermediate-boiling C1 HCC byproducts. Examples 1 and 2 of the '780 and '580 patents disclose a reaction byproduct containing only **0.1** percent by weight of HCC-40, an intermediate-boiling product. Thus, the present claims require three (3) times the concentration of this component than is exemplified in the prior patent. Applicants have discovered that this difference can be important in certain situations. For example,

applicants have discovered that many catalysts used in the presently claimed process maintain activity for a longer period of time if the reaction is carried out at higher pressures, for example, pressures higher than 180 psia (see page 10, lines 9 to 22; page 19, lines 21 to 24). The higher pressures, however, contribute to the production of larger amounts of intermediate-boiling byproduct HCC-40 than when the process is run at lower pressures, such as the 50 psig of the '580 and '708 patents (see Specification at page 10, lines 9 to 22; '580 patent, Col. 4, lines 15 to 56; '708 patent, Col. 4, lines 20 to 62). The '708 and '580 patents **fail** to recognize this improvement in catalyst longevity and the accompanying problem of generating larger amounts of intermediate-boiling byproducts which need to be removed. Further, the disclosures of the '708 and '580 patents also **do not** suggest modification of the process therein to improve catalyst longevity, which would produce the presently claimed percent by weight of intermediate-boiling C1 HCC byproducts. In view of at least this deficiency, the '708 and '580 patents fail to teach every element of the claimed invention. Accordingly, the present claims are not anticipated by the '708 or '580 patents for at least this reason.

Claims 1 to 11 and 15 are rejected as allegedly obvious under 35 U.S.C. § 103(a) in view of the combination of the '708 patent and the '580 patent. Applicants respectfully traverse this rejection as the one of ordinary skill in the art at the time of the present invention, when presented with the disclosures of the '708 and '580 patents, would not be suggested to obtain the presently claimed invention.

To establish a *prima facie* case of obviousness, "there must be some teaching, suggestion or motivation in the prior art to make the specific combination that was made by the applicant." *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998). "In other words, the examiner must show reasons that the skilled artisan, confronted with the same problem as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998).

Applicants submit respectfully that one skilled in the art would not have been motivated to modify the teachings of the '708 or '580 patents in such a way as to obtain Applicants' claimed invention. As detailed above, the '708 and '580 patents **do not** provide any disclosure regarding the improvement of catalyst longevity, which would produce the presently claimed percent by weight of intermediate-boiling C1 HCC byproducts. The '708 and '580 patents also contain no suggestion to modify the process disclosed therein in such a way as to improve catalyst longevity or address the problem of additional intermediate-boiling byproduct production caused by such improvement. Further, the Action **does not** provide any evidence to support the contention that the '708 and '580 patents contain any

such disclosure or any suggestion to modify same. Accordingly, the presently claimed process is patentable over combination of the '708 and '580 patents for at least this reason.

Conclusion

In view of the foregoing remarks, applicants assert that the present claims are in condition for allowance and respectfully request that the Office issue a Notice of Allowance at the earliest possible date. The Office is invited to contact Applicants' undersigned counsel by telephone in order to further the prosecution of this case in any way.

It is hereby requested that the term to respond to the Action of October 6, 2006 be extended two (2) months, from January 6, 2007 to March 6, 2007.

Authorization to charge a Credit Card is given to cover the extension fee. The Commissioner is hereby authorized to charge any additional fees associated with this communication to Deposit Account No. 19-5425.

The Commissioner is authorized hereby to charge any fees or credit any overpayment associated with this Reply (copy enclosed) to Deposit Account Number 19-5425.

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Respectfully submitted,

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